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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,965	07/01/2003	Norifumi Sata	MAT-8432US	2737
23122	7590	07/12/2006	EXAMINER	
RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			NGUYEN, KIMNHUNG T	
			ART UNIT	PAPER NUMBER
			2629	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/610,965

Applicant(s)

SATA ET AL.

Examiner

Kimnhung Nguyen

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

This application has been examined. The claims 1-10 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byun et al. (US 2001/0015721) in view of Otsuka et al. (US 6,941,160).

As to claim 1, Byun et al. discloses in figs. 4, 5A-5B, a mobile terminal comprising: a display (see display 102 of fig. 4 are related to window 402) having a menu section (icons 403) for displaying a predetermined function and a tag section (main menu 401) for displaying a name of said menu section (sub-menu 403); an input unit (left and right shift keys 301, up/ down key 302, and left and right soft keys 303) where a selection key (left and right keys 301) and an entry key (input key 103, related to prior art of fig. 1); and a input unit (301, 302) connected to said display (102, fig. 4), and wherein a plurality of tags (menus 401) are displayed on said tag section (because Byun et al. discloses each of the menu 401, having own tag of menu, see fig. 5A), and displays contents of one of said tags (because Byun et al. discloses a plurality of main menu 401, each of them corresponds to the sub-menus and display on the window 402 or 407, see fig. 5A-5B, see 0038), after being selected using said selection key, on said menu section.

However, Byun et al. does not disclose a controller connected to the input and a display.

Otsuka et al. discloses in fig. 1, a portable telephone (1) comprising a controller (see CPU 106) corresponds to the operation input (102) and display (104, see col. 6, lines 39-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the a controller (see CPU 106) corresponds to the operation input as taught by Otsuka et al. into the mobile terminal of Byun et al. having a plurality of tags and displays contents of the tags of Byun et al. for producing the claimed invention because this would provide a character list which corresponds to the key input, selects the character which corresponds to the number of times that the number key was pressed from the character list, and has the selected character displayed on the display which has been selected by the user pressing the display selection key (see col. 6, lines 39-44).

As to claim 4, Claim 4 depends on claim 1 and is rejected to the same reasons of claim 1.

Further, Byun et al. discloses the mobile terminal as defined in claim 1, further, wherein the predetermined function selected in the menu section (BELL/VIBRATION) is displayed larger than other functions (BELL/MELODY, because BELL/VIBRATION larger than BELL/MELODY, fig. 5A).

As to claims 6, Claim 6 depends on claim 1, and is rejected on the same reasons of the claim 1. Further, Byun et al. discloses the mobile terminal further, wherein a plurality of functions (BELL/MELODY, BELL LOUDNESS) are selected by operating the selection key (301), and a combination of the selected functions is stored in the controller as a new function (see the operating of up/down shift key 302 and the, if the user selects one of the application type

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icons, for example “bell/vibration conversion, “bell/melody conversion, and “bell loudness,” the detailed list of the selected sub-menu is display on a new window that is new function (see 0043).

As to claim 7, claim 7 is similar claim 6 and is rejected on the same reasons of claim 6.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byun et al. (US 2001/0015721) and Otsuka et al. (US 6,941,160) as applied to claim 1 above, and further in view of FREDERIKSEN (US 2002/0080186).

Byun et al. (US 2001/0015721) and Otsuka et al. disclose a mobile terminal as discussed in claim 1 above, however, they do not disclose that wherein the selection key has an approximately cylindrical shape, the selection key being rotated in one of the vertical direction for selecting an item in one of said menu section.

FREDERIKSEN discloses in figs. 1 and 3, a portable phone comprising the selection key (10) having a roller body an approximately cylindrical shape (see fig. 3, see 0029), the selection key being rotated in one of the vertical direction for selecting an item in one of said menu section (see fig. 4, see 0094).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the selection key having a roller body an approximately cylindrical shape, the selection key being rotated in one of the vertical direction for selecting an item in one of said menu section as taught by FREDERIKSEN into the mobile terminal having display menu of Byun et al. and Otsuka et al. for producing the claimed invention because this would provide

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the rolling of the roller body will move a cursor in the display in an up/down direction corresponding to the movement of the thumb, and convert the rotation of the roller body into the train of the electronic pulses fed to a processor of the phone (see 0029).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byun et al. (US 2001/0015721) and Otsuka et al. (US 6,941,160) as applied to claim 2 above, and further in view of Scott et al. (US 5,675,752).

Claim 3 depends on claim 2 and is rejected on the same reasons of claim 2. Further, Byun et al. discloses in figs. 4, 5A-5B, a mobile terminal comprising: a display (see display 102 of fig. 4 are related to window 402) having a menu section (icon 403,404) for displaying a predetermined function and a tag section (main menu 401) for displaying a name of said menu section, and a plurality of functions (BELL/MELODY SELECTION, BELL LOUDNESS) displayed in the menu section. Otsuka et al. discloses the controller connected to the input unit as discussed in claim 1, however, they do not disclose the menu section are disposed in an approximately circular arc.

Scott et al. discloses a interactive applications generator for an interactive presentation in the display screen in fig. 8a, having a menu section (Diner, Beverages, Snacks and Liquor) are disposed in an approximately circular arc to select a meal and beverage display screen (see col. 14, lines 49-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the display menu are circular arc as taught by Scott et al. into the mobile terminal having main menu of Byun et al. and Otsuka et al. for producing the claimed invention

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because this would provide to the user to select a meal and beverage menu display screen and reduce command from the view menu (see col. 14, lines 49-51), which is also more convenience for the user when select a menu with circular shape to chose to a kind of meals or beverage menu.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byun et al. (US 2001/0015721) and Otsuka et al. (US 6,941,160) as applied to claim 1 above, and further in view of Selig et al. (US 6,492,978).

Byun et al. and Otsuka et al. disclose the mobile terminal as defined in claim 1 as discussed above. Furthermore, Byun et al. discloses the entry key (a plurality of keys input 103, fig. 1 of prior art and related to a plurality of keys input of fig. 4) disposed on the front face of the display (102, fig. 4). However, they do not disclose the entry key is made of a transparent touch panel.

Selig et al. discloses the keyscreen system in figs 2-4, wherein each button (24) is made from transparent touch panel (see Selig et al., col. 6, lines 1-8, and lines 41-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the button is made from transparent touch panel as taught by Selig et al. into the mobile terminal having the menu section of Byun et al. and Otsuka et al. for producing the claimed invention because this would provide a configuration like a typical mechanical key which is readily visible and accessible by the user, and multiple visible targets for the user to depress (see Selig et al., col. 5, lines 65-67, col. 6, lines 1-3), and transmit the light therethrough, and used for viewing the virtual keypad displayed on the monitor behind the touchscreen (see Selig et al., col. 6, lines 41-48).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byun et al. (US 2001/5721) in view of Otsuka et al. (US 6,941,160) and in view of Son et al. (US 6,278,887).

As to claim 8, Byun et al. discloses in figs. 4, 5A-5B, a mobile terminal comprising: a display (see display 102 of fig. 4 are related to window 402) having a menu section (icon 403,404) for displaying a predetermined function and a tag section (main menu 401) for displaying a name of said menu section. Otsuka et al. discloses a controller (see CPU 106) to correspond to the operation input (102) and display (104) as discussed in claim 1.

However, Byun et al. and Otsuka et al. do not disclose that the input unit is not operated for a predetermined time, and turns off said display.

Son et al. discloses a wireless communication handsets in figs. 1-2, comprising a display is off because the user does not enter any keystrokes into the keypad (see fig. 2, col. 5, lines 33-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the wireless communication handsets comprising a display is off because the user does not enter any keystrokes into the keypad as taught by Son et al. into the mobile terminal having the controller corresponds to the operation input of Byun et al. and Otsuka et al. for producing the claimed invention because this would provide to the user a special display-on key can be provided on the keypad to enable the user to activate the display without causing data to be entered via keypad activity (see Son et al., see col. 5, lines 19-22).



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7. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byun et al. (2001/0015721) and Otsuka et al. (US 2001/0015721) in view of FREDERIKSEN (US 2002/0080186) and further in view of prior art of figures. 7 and 8 (submitted by Applicant).

Byun et al. and Otsuka et al. disclose every feature of the claimed invention as discussed in claim 1, however, Byun et al. and Otsuka et al. do not disclose a transmitter for receiving an electrical signal from said controller and outputting said electrical signal in the form of an infrared optical signal.

FREDERIKSEN discloses in fig. 2, a portable phone having a transmitter for receiving (19) an electrical signal from the controller (18) and outputting of the electrical signal (see fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the a transmitter for receiving an electrical signal and outputting of the electrical signal as taught by FREDERIKSEN into the mobile terminal having controller of Byun et al. and Otsuka et al. for producing the claimed invention because this would provide to the user to send information over a communication line or a circuit.

Byun et al., Otsuka et al. and FREDERIKSEN do not disclose that the electrical signal in the form of an infrared optical signal.

The prior art of figs. 7, 8 submitted by Applicant disclose that electrical signals in form of an infrared optical signal (see specification page 1, lines 21-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the electrical signals in form of an infrared optical signal as suggest by the prior art as submitted by Applicant into the mobile terminal having transmitter for receiving

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an electrical signal and outputting of the electrical signal of Byun et al., Otsuka et al. and FREDERIKSEN for producing the claimed invention because this would provide a frequency in the electromagnetic spectrum in the range just below that of red light, and provide the objects radiate infrared in proportion of their temperature.

As to claim 10, Byun et al. and Otsuka et al. disclose every feature of the claimed invention as discussed in claim 1, however, Byun et al. and Otsuka et al. do not disclose a receiver for receiving an infrared optical signal and converting said infrared optical signal to an electrical signal.

FREDERIKSEN discloses in fig. 2, a portable phone having a receiving (19) for receiving an electrical signal (see fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a receiving for receiving an electrical signal and outputting of the electrical signal as taught by FREDERIKSEN into the mobile terminal having controller of Byun et al. and Otsuka et al. for producing the claimed invention because this would provide to the user to accept data from external communication system, such as a local area network (LAN) or telephone line, and store the data as a file.

Byun et al., Otsuka et al. and FREDERIKSEN do not disclose the converting the infrared optical signal to an electrical signal.

The prior art of figs. 7, 8 submitted by Applicant disclose the converting the infrared optical signal to an electrical signal (see specification page 1, lines 21-23).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the converting the infrared optical signal to an electrical signal as suggest by the prior art as submitted by Applicant into the mobile terminal having receiving for receiving an electrical signal and outputting of the electrical signal of Byun et al., Otsuka et al. and FREDERIKSEN for producing the claimed invention because this would provide a frequency in the electromagnetic spectrum in the range just below that of red light, and provide the objects radiate infrared in proportion of their temperature.


#### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Kimnhung Nguyen  
Patent Examiner  
July 3, 2006